

### Surface Energy Data for PVOH: Poly(vinyl alcohol), CAS #25213-24-5

| Source <sup>(a)</sup>              | Mst. Type <sup>(b)</sup> | Data <sup>(c)</sup>  | Comments <sup>(d)</sup>   |
|------------------------------------|--------------------------|--|---|
| Ray, 1952 <sup>(14)</sup>          | Critical ST              | $\gamma_c = 37 \text{ mJ/m}^2$ ; 20°C  | Test liquids not known.   |
| Tezuka, 1986 <sup>(190)</sup>      | Contact angle            | $\theta_W^Y = 51^\circ$ ; 25°C   | Sessile drop method.  |
| van Oss, 1987 <sup>(24)</sup>      | Contact angle            | $\gamma_s = 42 \text{ mJ/m}^2$ ( $\gamma_s^{LW} = 42$ , $\gamma_s^{AB} = 0.0$ ,<br>$\gamma_s^+ = 0.0$ , $\gamma_s^- = 17-57$ ); 20°C | Test liquids water, alpha-bromonaphthalene, diiodomethane, formamide, and glycerin; acid-base analysis. |
| Lee, 1968 <sup>(131)</sup>         | Calculated               | $\gamma_s = 49 \text{ mJ/m}^2$ ; no temp cited   | Calculated from glass temperature of 358K.  |
| Wu, 1968 <sup>(182)</sup>          | Calculated               | $\gamma_s = 37 \text{ mJ/m}^2$ ; 20°C  | Calculated from molecular constitution.   |
| Sewell, 1971 <sup>(193)</sup>      | Calculated               | $\gamma_s = 34.0 \text{ mJ/m}^2$ ; no temp cited   | Calculated from parachor and cohesive energy.   |
| Van Krevelen, 1976 <sup>(85)</sup> | Calculated               | $\gamma_s = 59 \text{ mJ/m}^2$ ; no temp cited   | Calculated from parachor parameter.   |